**PNW Research Station**
**Scientist Recruitment Initiative**
**RWU Proposal**
**(June 2000)**


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**Position title/discipline of proposed position:** Research Forester, Biostatistician, Statistician, Research Ecologist or Research Geographer

**Brief description of proposed RWU/graduate research supported through this position:** The Forest Service supervisor and the student will design sampling approaches and inventory procedures for inventorying and monitoring terrestrial vegetation in forested riparian areas. A combination of permanent field plots, topographic modeling, remotely sensed data, and geostatistical analysis may be appropriate for obtaining information at sufficiently fine scale to support estimates of riparian condition and change, assessment of ecological and economic impacts of alternative riparian management policies and strategies, and support for decisions under ecosystem management (e.g., modeling recruitment of wood and other organic matter into streams, overland sediment transport).

The Forest Inventory and Analysis Research Program (FIA) at the Pacific Northwest Research Station (PNW) maintains an evenly distributed grid of permanent field plots across all forested lands in the Pacific Coast states; these are visited and remeasured on a ten-year cycle. Riparian zones, which are considered disproportionately important ecologically (e.g., fish, sediment influx, shade) and economically (e.g., greater biological productivity, habitat connectivity) relative to their real extent, are spatially structured in a way which renders a regular, grid-based sample design extremely inefficient. Numerous critical policy questions cannot be effectively addressed without a different kind of sampling design; creative approaches are needed to build the data foundations on which knowledge and models of terrestrial/aquatic interface processes and impacts can be constructed. Research is described and new staffing in this area is identified in the new draft Problem Analysis for PNW FIA.

**Desirable academic qualifications of the student recruit:** Bachelor's Degree in Forest Science, Ecology, Fisheries and Wildlife, Watershed Management, Geo-sciences, or related discipline. A strong background in biometry, statistics, and forestry is desired. The program will lead to a Master's or Ph.D. Degree.

**Colleges/universities** (to extend beyond those already identified in the Service-wide multicultural workforce initiatives such as Historically Black Colleges and Universities, the American Indian Higher education Consortium, and the Persons with Disabilities Initiative) to **be**

**contacted for potential recruits/applicants:** Oregon State University, University of Washington, University of British Columbia and University of California could supply recruits with strong undergraduate preparation, familiarity with Pacific Coast ecosystems and a potential interest in remaining on the west coast; numerous other universities could also provide well-trained recruits.

**Potential colleges/universities to provide graduate education:** Since there are no suitable colleges or universities in the Portland commuting area to support the required coursework, PNW FIA will consider suitable colleges or universities not in the immediate area. While university programs that emphasize Pacific Coast Forests, such as Oregon State University, University of Washington, or one of the University of California campuses could be advantageous, we are flexible about the study location and stipulate only that the setting should be a good match for both the student and the project. Other (more distant) universities with active research activity in areas related to this proposal include University of California Davis, Cornell University and University of Missouri, Columbia.

In addition to strong graduate programs in Forest Sciences, Oregon State University and University of Washington are co-located with PNW Research Laboratories, and are partners in numerous collaborations with the PNW Station; there are already several ongoing collaborations between Oregon State University and PNW FIA staff. Some of the other universities mentioned also have co-located or nearby USDA Forest Service research labs

**Brief description of the community environment (including housing, transportation and recreational opportunities, ethnic background):** This varies depending on the university selected for study, from Corvallis, OR, a college town of approximately 50,000 in western Oregon's Willamette Valley with excellent healthcare and educational systems, nearby recreational opportunities such as skiing, hiking and beach combing, and an ethnic mix of approximately 90% white, 5% Asian, 3% Hispanic and 2% black to Seattle, WA, a culturally diverse metropolitan area of nearly 2 million people that is near to several National Parks, ski areas, lakes and other recreational opportunities, has housing opportunities typical of a large, metropolitan area, an economy primarily based on technology and aerospace, and an ethnic mix of approximately 82% white, 11% Asian, 4% Hispanic and 6% black.

**Proposed temporary housing options for the student while working away from the campus (for example while working at the lab during summer months):** The PNW FIA unit is located in central Portland, OR, a diverse metropolitan area with a population of over one million, and housing opportunities typical of a large, metropolitan area.

**Brief explanation of how this proposal supports the scientist recruitment initiative:** This proposal will train a scientist for a permanent research position in the PNW Station. This scientist will be actively involved with colleagues in other research units at the Station and around the country, and with state and university collaborators in developing riparian inventory procedures which support contemporary questions and policy analysis.

Station Priority of proposal: Priority 1 _____ Priority 2 _____

I understand acceptance of this proposal will result in commitment to hire the student into a full-time permanent scientist position at my unit upon successful completion of the program.